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III.—THE SEMITIC VOWEL *a*.

It has been commonly held that the primitive Semitic language had only the six vowels, *a*, *ā*, *i*, *ī*, *u*, *ū*, and the diphthongs *ai* and *au*. This view, based on analogies and inferences, is liable to be modified at any time by facts that may hereafter be brought to light. The primitive vowels are recognized by a comparison of the dialects, and the vocalism of the various dialects is known to us mostly by signs invented at a late period, these signs being not always perfectly definite. We know in a general way the Hebrew vowel-pronunciation of the seventh century of our era, the Arabic of a somewhat earlier period, and the Ethiopic and Syriac of from one to three centuries still earlier, while the Phoenician is given only in scanty transcriptions, and the Sabeian not at all. With the Babylonian it is different; it was written not in a purely consonantal, but in a syllabic character, and its records go back, it is claimed, to the sixteenth century before the beginning of our era. In it, therefore, we may have a very valuable testimony to an early Semitic pronunciation, which may not only furnish materials for the history of the Babylonian-Assyrian vocalism, but also throw light on that of the sister dialects, especially the central or Canaanitish group. Its value is diminished, indeed, by the fact that it is written in a foreign character not invented by Semites or to express Semitic sounds; yet this disadvantage concerns the consonants mainly, and if the writing is correctly read, it ought to give us in general a true picture of the early Babylonian pronunciation of the vowels. In the case of the other dialects our direct information does not go back further than about the beginning of our era, and the results of comparison of sounds must always have the uncertainty that attaches to the materials.

When the dialects agree in employing a certain vowel, we may suppose that to belong to the primitive language. When they disagree, the preference is to be given in general to a simple over a derived or compound sound, and to *a* over *i* or *u*.

I have here gathered some materials for a history of the first vowel, *a*, giving first the cases in which it has maintained itself, and then the changes it has undergone.

It has been preserved in the following forms :

First, in the primitive or underived noun, in a number of biliteral words, such as *ab* "father," *ah*, "brother," and *yad* and *kaf* "hand," in which, except the last, Hebrew, in accordance with its law of tone-broadening, has retained the original vowel only in the status constructus, and in the plural of *ah*. Further, all the dialects show the *a* in the monosyllabic trilaterals, sometimes bare, as Eth. *nafs* "soul," Phoenician *malk* "king," and the modern Arabic and Tigriña, sometimes with case-ending, Arab. *baḥru* "sea," or emphatic ending, Assy. *kalba* "dog," Syr. *yaldo* "child," or with suffix, in all the dialects; Hebrew, not allowing the bare monosyllable, inserts an *e* and writes *melek* for *malk*, and Syriac puts the vowel after the second consonant, *šfar* "writing" instead of *safr*. These monosyllabic words are both abstract and concrete in meaning. The abstracts are found abundantly in Arabic and Ethiopic as nomina verbi or infinitives, in Ethiopic and elsewhere also as simple abstract conceptions, Eth. *ward* "breadth"; in Hebrew they are more commonly concrete, which is probably a secondary signification. Originally the form *kall* seems to have signified an act, and then to have passed into the sense of actor, or, less frequently, came to denote the result of the action. While the concrete forms abound in all the languages, the abstracts are more numerous in the southern branch.

In the dissyllabic trilaterals the Arabic shows the greatest number of *a*-forms, in accordance with its general greater wealth of forms, but they are found frequently in most of the other dialects. In Assyrian we have *katal*, *katil*, *kutal*, *kattal*, in Syriac *katal*, *katol*, Jewish Aramaic *kāṭal*, modern Syriac *katil*, Eth. *ketal*, *katal*. Its occurrence in Hebrew is generally determined by the tone—it is found in the construct, which is treated phonetically as toneless, as *dbar* from *dābār*, and before dagesh forte. In a few other cases also it is met with. Alongside of *gilgāl* "wheel" we find *galgal*, which appears to be not an Aramaizing, but an old Hebrew form. The words *mayim* "water" and *shāmayim* "heaven," in which the accent is on the penult, appear to simulate the dual ending, or have arisen from the same phonetic feeling. The numeral *arba*, "four," and the proper name *arwad*, Ezek. xxvii 8, are treated like *galgal*. In a few cases, therefore, the Heb. *a* has been able to maintain itself in an accented closed syllable; it will be observed that in these cases the pretonic syllable also has *a*, and assimilation may be the ground of the retention of the second *a*.

Derived nouns made by prefixing *ma*, *ta*, *na*, *ha*, *ya* generally retain the *a* of the prefix. Of *a*-inflections we have the accusative sign *a*, the dual *aini* and *ayin*, the Arabic plurals *āna* and *īna*, and the feminine *at*, which in Hebrew is found only in the construct. In the Hebrew dual *ayin* the *a* is preserved by the accent, like the first vowel of segolates, and the accent points to a form *ayn*, identical with the Arabic *aini*. It is a question whether the *a* here and in acc. *a* and plu. *āna* and *īna* is original, or comes out of old Semitic *ā*. For the latter view we have Arabic dual *āni*, Heb. acc. *ā*, and Syr. imperf. plu. 3 masc. *nektelūnōn* for *nektelunā.ni*. But the Syriac example is not decisive, for how shall we explain the suffix form of perf. sing. 3 masc. *katelōk* for *katalāk*, where the stem is undoubtedly *katala* with final short vowel? On the other hand, the lengthening of *a* into *ā* is a perfectly intelligible process. So *ni* of Arabic dual comes more naturally from *na* than from *nā*, and *āni* more easily from *ana* than from *ānā*. The probability therefore is that old Semitic accus. ended in *a* and plural in *āna* and *īna*; this agrees also with the Heb. verb-form with suffix *yiktelen.ni* for *yiktelan.ni*.

The original form of the perfect of the verb, *katala*, with its derivatives and inflections, has been maintained to different extents in the various dialects. The southern group sometimes drops the first or the third vowel in the simple form (after prefixes, or before personal endings), but does not modify it for euphonic reasons. In the western (Canaanite) and northern (Aramaic) groups the changes are more considerable. These always drop the third vowel, except before suffixes, and in the derived stems sometimes compress the second to *ē* or *ī* in accented and to *i* in unaccented syllables, and Hebrew further broadens the first to *ā*. It however maintains the second vowel in the Kal perfect, saying *kātal* "he killed" (= "a killing [by him] ") alongside of **kātal* "a killing or killer." This maintenance of the short vowel, found occasionally in nouns, but especially characteristic of the Heb. verb, is probably to be explained from the accentual relations of the words in the primitive sentence, the voice resting longer on the last syllable of the noun as expressing a thing complete in itself, while the verb-noun looked to some following word as its complement.

The original forms of the pronouns are difficult to fix, but, leaving aside the manner of their origination, we may recognize a primitive *a* in the following: *anā*, *anta* and the component *an* throughout, the syllables *wa* and *ya* in *kuwa* and *hiya*, *naḥnu*, the article *hal*,

al, the interrogatives *man*, *ay*. From the article we may perhaps infer a primitive stem *ha*, with which may be compared Heb. and Arab. *hā* as a probable lengthening; so *mā* out of *ma*, and possibly *dā* or *ḏā*, whence Arabic *ḏā*.

Most of the simple particles have *a*, as *ba*, *ka*, *la*, *wa*, *fa*, *sa*, *a*, *am*, *an*, *al*, *la*, *ḡad*, *au* (= *aw*), *lau* (= *law*), *kai* (= *kay*), and others.

While the *a* has thus maintained itself in so large a number of cases, it has also suffered frequent phonetic diminution and increase, mainly by the influence of the accent. First, let us take the forms in which it has undergone degradation.

1. Into *ä*, *ē*. The eastern (Babylonian-Assyrian) dialects seem to offer no example of this change. The eastern Aramaic writes the Peal imperf. *nektul* for *naktul* (the biblical Aram. has *yik*); the Samaritan also shows this vowel often in an unaccented closed syllable, and the same change is found in the Mandaean, and in the modern Syriac dialect of Urmi. In Hebrew this vowel plays a prominent part in the segolates, in the first class of which the *a* becomes *ē* always in the isolated noun, by assimilation to the following *ē*. It is less easy to see why the article *ha* assumes the form *hē* before certain strong gutturals pointed with *ḡameṣ*; it seems to be a case of dissimilation, avoidance of the concurrence of *a* and *ā*. The form *yed* for *yad*, before suffix *kem* is perhaps a sporadic case of assimilation, and *way.yomer* is from *yomar* by loss of accent. In Punic (Plautus) occurs *anek* as first personal pronoun, which may be out of *anok*, but comes more easily from *anak*. The *ē*-sound is not marked in the Arabic vowel-scheme, and there is no means of determining whether it existed in very early times, or at the rise of Islam; but in the modern language it has commonly taken the place of *a*, except before and after strong gutturals and emphatic palatals and *r* doubled or preceded by *ā* or *ū*. It is possible, it may be said to be probable that this change took place after the Moslem conquests, when Arabic became the language of cities and suffered more from the wear of ordinary intercourse or from the carelessness of foreigners. The early grammarians of Cufa and Baṣra gathered their materials from the bedawin, and adopted the writing which had been invented to represent the desert-pronunciation. But whether this vowel-system in fact represented accurately the shades of pronunciation it is hardly possible now to say. It does not seem probable that so highly developed a language as the Arabic should content itself

with three vowel-sounds. On the other hand, the scheme is consistent and corresponds to what comparison of dialects shows to have been the primitive system. It is perhaps better to suppose that a change of pronunciation had begun when the vowel-signs were adopted, but that the differences were too slight to arrest the attention of native speakers. This passage of *a* into *ē* or *ä* is frequent also in Ethiopic, and, according to Ludolph, was universal two hundred years ago; it is usual in another African Semitic dialect, the Tigriña. These facts show a general movement in this direction in all the dialects, more obvious the farther down we come. In those languages which early ceased to be spoken, as Assyrian and Hebrew, the change is slight; in the modern tongues it has made great progress. But it is only in these last that we have the means of fixing the popular pronunciation, and it seems likely that if we had full information of the speech of earlier times, we should find the beginnings of the change far back in the history of the Semitic languages. Here are traces of a more or less continuous advance of modification, and it is difficult to set a time at which it began. It would be rash to say that it dates from the mother-language, or even immediately after the separation into the northern and southern groups, for the Arabic and the Assyrian apparently show no signs of its presence. But the facts point to a very early period for its commencement, and indicate processes at work that the existing systems of vowel-writing do not record.

2. Into *i*. The degradation of *a* into *i* is more general than the change above described. In the eastern branch we have the abstract noun of action, as *zakir*, from *zakar*, as appears from the feminine *zakarāt*; the noun-prefix *tī*, in *tirhās* "liberation," obviously from *ta*; the imperfect prefix *yī*, out of *ya*; and probably the precativ sign *li*, identical with the preposition *li*. The origin of this last is doubtful, but when we compare the forms *la*, *li*, *lʿ*, all meaning "to," it seems probable that the first is the original from which the others have come. The northern branch seems relatively less fond of the *i*, generally preferring an *e*-sound. The old Syriac, which represents an eastern form of Aramaic, shows *i* under the influence of a Yod, in verbs with first radical Yod, and verbs third rad. Alef (originally Yod); but here the *i* has not come immediately from *a*, but through *sh'wa* and *e*, and in some cases by assimilation, namely, in the passive perfects of verbs third Alef. The Mandeian and modern Urmi dialects have such nouns as *sitwa* "winter," *kifna* "hunger"; the noun-prefix *mi* is

found in Biblical Aramaic (a western, Hebraizing dialect) and in Urmi, as *miskēn* "poor," and in the latter also *tī*, as in *tīṣboḥto* "price" (*mī* and *tī* never in classic Syriac); in the verb, *i* occurs in the prefix of Peal imperfect, third pers. sing., *yī* in Biblical Aramaic, *nī* in Mandaean. In contrast with the northern, the western branch has very largely depressed *a* to *i*, generally in unaccented closed and in half-open syllables. In the latter, Hebrew makes a difference between nouns of the forms *katal* and *katl*; in the construct plural the former becomes *kīl*, the latter *katl*; this *katl* is merely a preservation of the original stem-vowel, *malk*, *mal'kē*, of which the language retained a distinct consciousness, while in *kīl*, if the *i* is out of the original *a*, we must suppose that the primitive form *katal* was no longer distinctly remembered. These two stems were in fact treated in very different ways. In the one (*katl*) the distinctive *a* is kept constantly prominent in the singular and the construct plural; in the other the two *a*-sounds are almost completely lost sight of, the second appearing only in the singular, in construct and before the heavy suffixes, the first not appearing at all. And if in the plural the construct was historically later than the absolute, this apparent forgetfulness of the *a* so far favors the old explanation of the *i* as a helping vowel, not an immediate derivation from *a*. The three segolate-forms maintain their vowels in the construct plural; from *malk*, *sifr*, *ḫōdš* we have *mal'kē*, *sifrē*, *ḫōdšē*; and if in the other case a form *dabar* was felt to underlie the plural inflections, it does not appear why Heb. should not say *dab'rē* as well as *mal'kē*. If, on the other hand, the starting-point in the plural was *d'bārīm*, from this would come naturally first *d'b'rē* and then *dib'rē*. The same remark applies to the prepositions *ba*, *ka*, *la*, which appear in Heb. ordinarily as *bē*, *kē*, *lē*, but before simple sh'wa become *bī*, *kī*, *lī*. Here, however, there is no difficulty in supposing an immediate derivation of *i* from *a*. There was a constant effort in the pronunciation to shorten the *a*, and this was effected in different degrees according to the demands of euphony or convenience under different circumstances. This explanation may also cover the case of the *d'bārīm* and *dib'rē*, though the doubt arising from the different treatment of *dib'rē* and *mal'kē* still remains. In the case of unaccented closed syllables the Heb. usage is uniform. Phœnician has some noticeable sporadic shortenings, as *milk* for *malk*, *id* for *yad*, and, in Plautus, *ys* for *as*, the relative pronoun; with *id* we may compare Syriac emphatic *ido*. In the verb Heb. treats original *a* differently

in derived stems in perfect and imperfect (together with imperative and infinitive); in the former it sinks it, in unaccented closed syllables, to *i*, in the latter it retains it; we have *kittēl* and *hiktēl* alongside of *kattēl* and *haktēl*, *y^hkattēl* and *yaktēl* for *y^hhaktēl*. This seems to be another example of the tendency to greater fullness in the noun-form, which appears in *dābār* as compared with *dābar*. A case of sporadic shortening in Heb. is found in *šiltw* and a few such forms, and is due to the suffix. In the southern branch comparatively few traces of *i* out of *a* are discoverable. The Arabic preposition and adverb *li* has already been referred to as probably arising from *la*. The prefix *mi* used for forming nouns expressing the instrument certainly comes from *ma*; this prefix does not occur in the African Semitic dialects, and in the Sabeian the vowels are not indicated.

3. According to a very common tendency in language, the *a* suffers a further shortening into several more or less indistinct sounds, which are rarely marked with precision in any Semitic graphic system. Thus, in the modern Arabic of Syria and the modern Syriac of Urmi the *a* often has the sound of English *u* (in *but*); the missionaries in Urmi write the first vowel of the names Bunyan and London with the sign which in classic Syriac would be pronounced pure *a*, whence it is to be inferred that original *a* has sometimes become *ū*. With this may be compared the disposition in some English-speaking persons to substitute this *ū*-sound for all English vowels, that is, to facilitate pronunciation by bringing the sounds as far to the front as possible. In Urmi this modification occurs more commonly in connection with the throat-consonants, though it is not confined to these limits, and shows disposition to extend itself.

Similar to this is the change into *ō* (in English *not*) in Urmi and Tigrīña, as in Urmi the first vowel of English "doctor," in Tigrīña *gōbūr* for *gabūr*; in this last Praetorius (Tigrīña-Sprache, p. 29) sees an example of vowel-harmonization, the change of *a* into *ō* or *ū* being induced by the presence of a preceding or following *o* or *u*.

In Tigrīña the *a* sometimes also passes into *u* (in English *full*) or into *ō* (in *not*) under the influence of a following labial.

4. The final step in the process of shortening proper (when some sound is retained) is taken when the *a* assumes the obscure form indicated by the Hebrew *sh'wa*. Even in this there are degrees of obscurity, expressed by simple and composite *sh'wa*; but this difference, which is indicated only in the Hebrew notation,

may be neglected, especially as the distincter forms of the sh'wa tend to become identical with the *ē*, *ō* and *ū* above mentioned. Here again we have a natural modification, traces of which are found in many languages, notably in English, where in such words as *apathy*, *jollity*, *melody*, the popular pronunciation often obscures the middle vowels into scarcely distinguishable sh'was, and this has become in some cases the accepted usage. How far back it goes in the history of the Semitic tongues it is impossible to say. It is found in all the modern dialects, and is discernible in all the later graphic systems except the Arabic. In Babylonian-Assyrian and Arabic there is no written sign of sh'wa, but considering its universal prevalence in the neighboring dialects the presumption is strong that at least the beginning of such a modification existed in these also. Thanks to the elaborate punctuation of the Palestinian notation we have a full exhibition of it in Hebrew, in which it was perhaps more largely developed than in the other dialects, and where at any rate it plays a more important part in the inflection. In nouns it takes the place of a changeable vowel in antepretonic absolute or pretonic construct, and of pretonic *ē* preceded by a firm vowel; in verbs, where there is no suffix, it displaces any pretonic changeable vowel in a word of more than two syllables (the sh'wa being counted as a separate syllable). This difference of treatment of noun and verb is in the same line with that mentioned above, namely, the retention of simple *a* in the second syllable of the verb-stem, and its broadening into *ā* in the noun. When to the noun-stem *katal* a genitive suffix was attached the result was *k^otālā.h*, the second *ā* holding the voice on the stem as expressing an independent and the main object to which the suffix was merely an explanatory attachment. On the contrary the verb-stem *katal* was felt to be incomplete without the designation of the subject-agent, and, hastening to unite itself to this, depressed its second vowel into sh'wa and became *kāt^olā.h*. When, however, not the subject but the object of the verb-action was to be appended, the nominal character of the stem again became prominent, and there resulted the form *k^otālā.h*. In particles the sh'wa appears for *a* in open monosyllables, as *b^o*, *k^o*, *l^o*, *w^o*, above referred to. The treatment of sh'wa in Phoenician was probably the same as in Hebrew. In Aramaic also it is prominent, more frequent indeed in stems than in Hebrew, since in the form *katal* the first vowel is regularly depressed to its limit, and the segolate *katl* is written *ktal* = *k^otal*. By reason of the Aramaic meagreness of vowels the

sh'wa is often called into requisition, standing in the pretonic syllable where Hebrew prefers a full vowel, as in the third sing. masc. Peal perfect of the regular verb, and the imperf. Peal and Afel of verbs middle Waw. In this respect the modern dialects do not differ essentially from the classic Syriac. The Urmi, according to the American missionaries, shows a preference for initial sh'wa, and even allows two sh'was at the beginning of a word, which neither Hebrew nor classic Syriac permits. Ethiopic has only one sign for *š* and sh'wa, and the pronunciation is therefore in many cases doubtful. But that the sh'wa really existed in the language is rendered probable not only by the fact urged by Dillmann (*Grammatik*, p. 33) that between the earlier full vowel in certain cases and the later absence of vowel there must have intervened an obscure sh'wa-like sound as intermediary, but also by the uncertainty of the reports given by the older grammarians of the power of the *š*; they rendered it by *š* or *š* or *y* because it was often too obscure to be distinctly fixed. The same thing is true of the Tigrîna, but neither in it nor in Ethiopic is the sh'wa of importance for the grammar. In modern Arabic when two consonants are followed by a long vowel, the first commonly has an obscure sound, which is practically sh'wa. This is the result of rapidity of pronunciation, and has no grammatical value.

5. Disappearance of the *a*. All Semitic nominal and verbal stems, there is reason to believe, originally ended in *a*, and this final sound has been dropped at various points in the interests of facility and rapidity of pronunciation. In this respect the northern and southern groups have acted differently. Both have gotten rid of the final *a* of the verb-stem before personal endings beginning with a consonant, but in addition the northern group has dropped it in the naked stem (resuming it before suffixes), while the southern has retained it. The Aramaic further drops it in the stem of the noun before the singular feminine ending *t* where an addition is made at the end (emphatic or suffix), and the Hebrew under similar circumstances when the feminine ending is unaccented (*et*). Further, the first *a* of the simple stem in noun and verb is always dropped after a prefix, as in derived stems (Nifal, etc.), the imperfect (if the first vowel was *a* in that form), and nouns made by *ma*, *ta*, etc. These may all be called prehistoric changes. They do not form part of the living mechanism of the language in the times in which it is known to us by the literature. All that can be said is that the process of vowel-clipping went just so far, and was then arrested

by the euphonic feeling of the speakers. Yet that the movement is not wholly dead is shown by the fact that modern Arabic has also dropped the last vowel of the naked verb-stem, and thus reached the position of the Hebrew. The tendency to shortening has been constantly acting on the trisyllabism which is the Semitic norm of the word, and has modified it as far as was possible without utterly destroying it. A vowel has been dropped here and there, but the indisposition to let this process go very far is illustrated by the Hebrew segolate formation, where, having given up the third vowel, it has replaced the lost second by an entirely new one, and reconstructed the word as a dissyllable.

In addition to these diminutions the Semitic *a* has undergone extensions by movements in the opposite direction, hardly less considerable than those just described.

6. First, it has been broadened into *ā*. As a mere euphonic, ungrammatical change, this is clearly recognizable only in Hebrew, where it occurs regularly in the noun in pretonic syllables, except in the construct, and in accented syllables, and in the verb in pretonic (not counting *sh'wa* as a separate syllable), as in Kal perf. third sing. masc., and before suffixes (where it also occurs in open accented syllables). How far this broadening is a partly artificial peculiarity of the masoretic scheme, that is, of the learned synagogal pronunciation (where the sound was probably that of *a* in English *fall*), we have no means of determining. It seems not to be found in the Samaritan pronunciation of Hebrew, and this fact, though not decisive (for a foreign pronunciation of a language is not often to be trusted), creates a suspicion as to the genuineness of the *ā*. It is in any case a simple and natural modification of the *a*. It is doubtful whether it appears in any dialect except Hebrew. Cases occur in the African dialects (Ethiopic, Amharic, Tigrīña) where the fourth vowel-sign (*ā*) stands in the place of the usual *a*, but whether this is a true euphonic lengthening, or this sign was rather pronounced as simple *a*, is not clear. Yet it is to be noted that in modern Arabic the presence of Ayin converts the *a* into the vowel of English *fall*, and such a change in Tigrīña is not improbable. The grammatically significant broadening of the *a*, as in the participle *kātil* (Heb. *kētēl*) does not belong here, for the origin of this *ā* is not known—it may be the result of the addition of some formative syllable.

7. A diphthongizing into *ē* has taken place in all branches of the Semitic languages. In Assyrian verbs first Ayin the preformative

t of the imperfect, for example, sounds *tē* for original *ta* (effect of the Ayin?). In the Hebrew verb the *a* of the final closed accented syllable of the active derived stems has commonly become *ē*, through stress of voice, as in the perfect of Piel and Hithpaël, infin. and imperat. Hifil; and further in Kal infin. of verbs first Nun and Yod, Hifil perfect of double Ayin verbs, and perhaps Kal imperfect of verbs first Waw; in the suffixes to the singular noun the *ē* is to be regarded as coming from *a* wherever no Yod has intervened, in which case the *ē* is for the diphthong *ai*. Aramaic shows the *ē* in similar nominal and verbal forms, and in addition in the segolate, *mlēk* for *malk*, and the first-personal pronoun *ēnō* for *anā*. The Mandaean and Urmi dialects probably have like forms, but do not clearly distinguish *ē* from *ē̄*. As the Arabic notation has no sign for *ē* we are dependent on the modern pronunciation for indications of its presence, and this pronunciation is not always decided, fluctuating somewhat between *ē̄* and *ē*, the latter more commonly occurring in open syllables. This uncertainty exists also in Tigriña, where in many cases the normal sixth vowel (*ē̄*) is represented by the fifth (*ē*). These spoken dialects are in the condition of the English, with an undefined vowel-pronunciation, the shades of which are not indicated by the written signs. In Ethiopic the imperfect of the intensive verb shows *ē* in certain cases as compensation for an omitted doubling.

8. Besides the above mentioned a few other modifications of the *a* appear sporadically, the most important of which is the *i* of the Hebrew Hifil. This takes the place of the second stem *a* when it is in the final syllable (except in infin. absolute), and before personal endings beginning with a vowel. According to one explanation this is after the analogy of verbs middle Yod, in which the Yod naturally induced the change to *i*, and out of *ha.byan* came *hē.bīn*—thence by imitation the form passed into all Hifils. It would more naturally, however, arise in the imperfect of the middle Yod and Waw verbs, of which the norm would be *ya.kwim*, *ya.bīn*, whence *yā.kīm*, *yā.bīn*, and still more simply from the imperfect of the regular verb, *yaktīl*. This *i* would by the accent sometimes go into *ē* (imperative, shortened imperfect), sometimes into *ī*, as in the ordinary imperfect, and would then be retained by the accent. The problem is to account for the unusual tone of the Hifil, which again connects it with the monosyllabic stems. Supposing the accent fixed, it is conceivable that the *i*-form passed from imperfect into perfect, though the language gives no information as to how this occurred.

After labials the Tigrīna sometimes changes *a* into *u* or *o*, or even into a diphthong. With this may be compared the passage of Hebrew *w^e* (for *wa*) into *u* under similar circumstances.

There has thus been from the earliest known times a very considerable movement of this vowel (a movement that is still in progress in the spoken dialects), which closely resembles vowel modifications in other families of languages, particularly the Indo-European, and so far points to the oneness of the phonetic principles that control the various groups of human speech. The above imperfect sketch merely states some of the facts in the particular Semitic dialects; there should then follow the inquiry whether any of these modifications of the *a* existed in the primitive Semitic, but this must be deferred.

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